PATENT ABSTRACTS OF JAPAN

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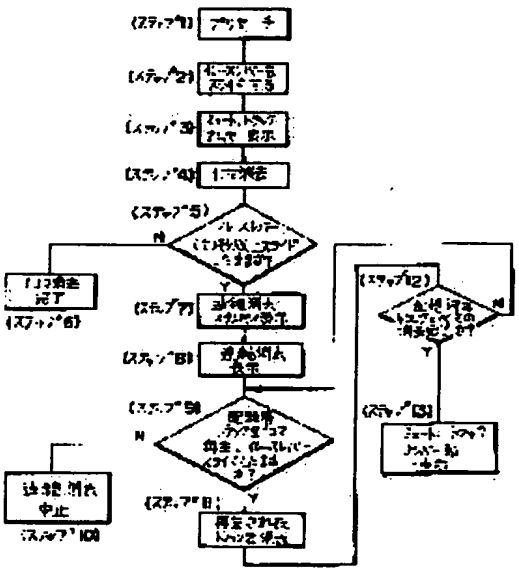
(54) METHOD FOR ERASING RECORDED PICTURE FROM VIDEO FLOPPY

(57)Abstract:
PURPOSE: To prevent wrong erasure of a picture to be recorded for preservation by providing a function which reproduces pictures to be erased immediately before erasure during the course of a series of erasing operations and enabling the operator to stop the erasing operations in the middle of the erasing operations when required after confirming the picture.
CONSTITUTION: When an erase lever is slid, reproduced pictures are erased by one frame. When the erase lever is continuously slid for (t) seconds, 'continuous erasure standby' is indicated and picture on the next track are reproduced. As far as the erase lever is kept slid, pictures on each track are successively erased after reproduction until the erasing operations reach the 50th track. When the erase lever is released, the continuous erasure is immediately stopped.



LEGAL STATUS

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* NOTICES *

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CLAIMS

[Claim(s)]
[Claim 1] It searches beforehand whether the image is recorded by the Puri search function to each truck. When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display continuation elimination and the image of the next truck is reproduced. It judges whether when actuation of said IRESU actuation means is furthermore continuing, the image was eliminated and elimination actuation is all completed to a recorded truck. When elimination actuation is not completed, after reproducing to the image of the next truck further, When the actuation to eliminate is repeated and actuation of said IRESU actuation means is completed during said playback elimination repeat actuation, continuation elimination is stopped at the time. It is the video floppy record drawing elimination approach characterized by constituting so that that may be displayed on a display, when elimination is all completed to said recorded truck.
[Claim 2] When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display all piece elimination standby and continuation playback of the image of all the trucks after a degree is carried out. By the time said continuation playback is completed, when actuation of said IRESU actuation means is completed, all piece elimination is stopped. It is the video floppy record drawing elimination approach characterized by constituting so that all piece elimination displays may be performed, all piece elimination may be performed and that may be displayed on a display, after carrying out continuation playback, when actuation of said IRESU actuation means is continuing further.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] This invention relates to the approach of eliminating the image photoed with the electronic "still" camera.
[0002]
[Description of the Prior Art] In the regenerative apparatus of an electronic video camera or a video floppy, it has the function which usually specifies an unnecessary piece and eliminates one piece, and the function which carries out package elimination of all the images of a video floppy. In order to realize the above-mentioned function, conventionally, there is combination of various switches and it was going also across the operating instructions variably. The typical example is shown below.
** Prepare three carbon buttons, a standby carbon button, an IRESU carbon button, and an all IRESU carbon button, and at the time of 1 piece elimination, push an IRESU carbon button after pushing a standby carbon button. And at the time of all piece elimination, after pushing a standby carbon button, an all IRESU carbon button is pushed.
** Prepare two carbon buttons, a standby carbon button and an IRESU carbon button, and at the time of 1 piece elimination, push an IRESU carbon button after pushing a standby carbon button. And an IRESU carbon button is pushed at the time of all piece elimination, pushing a standby carbon button.
** Consist of two carbon buttons, an IRESU carbon button and a release carbon button, and push a release carbon button at the time of 1 piece elimination, pushing an IRESU carbon button. And the video floppy which should be eliminated while pushing an IRESU carbon button is put in at the time of all piece elimination.
[0003]
[Problem(s) to be Solved by the Invention] It did not have the function which confirms whether the image which must not devise no above-mentioned examples in order to prevent malfunction of a push mistake etc., and must not be erased in that it is the video floppy which may be erased, or a video floppy is contained. Therefore, when an operator had not noticed, there was a fault of erasing an important image accidentally. It is for providing about the elimination approach of the video floppy record drawing which does not eliminate accidentally the image which should carry out record-keeping by the purpose of this invention solving the above-mentioned fault, preparing the function which reproduces the image which should be eliminated just before elimination into a series of elimination actuation, checking the image which an operator should eliminate, and enabling the termination of elimination actuation on the way if needed.
[0004]
[Means for Solving the Problem] In order to attain said purpose, the video floppy record drawing elimination approach by this invention searches beforehand whether the image is recorded by the Puri search function to each truck. When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display continuation elimination and the image of the next truck is reproduced. It judges whether when actuation of said IRESU actuation means is furthermore continuing, the image was eliminated and elimination actuation is

all completed to a recorded truck. When elimination actuation is not completed, after reproducing to the image of the next truck further, The actuation to eliminate is repeated, when actuation of said IRESU actuation means is completed during said playback elimination repeat actuation, continuation elimination is stopped at the time, and when elimination is all completed to said recorded truck, it is constituted so that that may be displayed on a display. Moreover, when an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display all piece elimination standby and continuation playback of the image of all the trucks after a degree is carried out. By the time said continuation playback is completed, when actuation of said IRESU actuation means is completed, all piece elimination is stopped, and when actuation of said IRESU actuation means is continuing further, after carrying out continuation playback, it is constituted so that all piece elimination displays may be performed, all piece elimination may be carried out and that may be displayed to a display.

[0005]

[Example] Hereafter, with reference to a drawing etc., this invention is explained in more detail. Drawing 1 is drawing for explaining the actuated valve position of the IRESURE bar in each process of the video floppy record drawing elimination approach by this invention of operation, and the condition of TV screen. If the IRESURE bar which is an IRESU actuation means is made to slide in the direction of drawing Nakamigi, the actuation for elimination is started, according to an elimination procedure, TV screen will be in a playback condition, it will be in a mute condition, or a track number, a standby display, etc. will be displayed.

[0006] Drawing 2 is a flow chart which shows one example of the procedure of the video floppy record drawing elimination approach by this invention. Hereafter, the actuated valve position of the IRESURE bar of drawing 1 in each step and TV screen condition at that time are explained, explaining the flow of drawing 2 . If it equips with a video floppy, the Puri search function will be started and image information will be detected about all one to 50 trucks (step 1). If you wish continuation elimination here, the image of the truck of the youngest number that wishes to eliminate will be reproduced on TV screen by operating a playback carbon button (drawing 1 **).

An operator will slide an IRESURE bar, if it checks that the reproduced screen may be seen and eliminated (step 2). The piece is eliminated, after changing TV screen into a mute condition with the slide of an IRESURE bar and displaying a track number (steps 3 and 4). Drawing 1 ** shows the actuated valve position and TV screen of an IRESURE bar at this time.

[0007] Decision whether it is continuing t seconds or more is made (step 5), when a slide condition is canceled within t seconds, 1 piece elimination is performed, and the slide condition of the above-mentioned IRESURE bar ends the actuation (step 6). On the other hand, when a slide condition continues t seconds or more, a continuation elimination display is continuously displayed continuation elimination standby and performed on TV screen (steps 7 and 8). It is the display of CONT.STBY of drawing 1 **, and CONT.ERASE of **. At this time, the head is moved and playback of the image of that truck is performed in the location of the next truck. It is the screen of TV of drawing 1 **. When an IRESURE bar judges whether a slide condition is still maintained (step 9) and is not maintained at this time, continuation elimination actuation is stopped (step 10).

[0008] When the slide condition of an IRESURE bar is maintained, the image of the reproduced truck is eliminated (step 11). Drawing 1 ** shows the condition when eliminating the image of two trucks as mentioned above. Then, it distinguishes whether elimination of all memorized trucks was completed (step 12). When elimination is not completed, the image of return and the next truck is reproduced and eliminated by step 9. This playback elimination actuation is repeated, when elimination of all recorded trucks is completed, TV screen is made into a mute condition, and -- is displayed on a part for a track number display (step 13). It is in the condition of drawing 1 **. In addition, continuation elimination actuation can be stopped at the time by detaching an IRESURE bar to the midst which repeats the loop formation constituted by the above-mentioned steps 9, 11, and 12, and is performing sequential playback elimination.

[0009] Drawing 3 is drawing showing one example of the structure of an IRESURE bar. A transverse-plane sectional view and this drawing (b) of this drawing (a) are top views where an A-A sectional view

and this drawing (c) observed the lock pin. A lever 9 is inserted in slide hole 6b of a case 6, fitting of the fitting sections 9a and 9b projected through case lock hole 6a is carried out to the lever holder 11, and a lever 9 and the lever holder 11 slide the inside of slide hole 6b by one. In case Holes 9c and 11a are formed in a lever 9 and the center section of the lever holder 11 and the above-mentioned lever 9 and the lever holder 11 are fitted in, it is made to also insert a lock pin in these holes 9c and 11a.

[0010] Lock pin discharge section 7b inserts in hole 9c, and interior of lock pin proposal 7c is made to insert in hole 11a, respectively. The lock spring 8 is fitted in interior of lock pin proposal 7c of a lock pin 7, and, as for a lock pin 7, the energization force is given in the lever 9 direction. It is built over the lever spring 3 between projection 11b of the lever holder 11, and lobe 6c of a case 6, and, as for the lever 9, the energization force is given leftward in drawing. With projection 11b of the lever holder 11, pressing section 11c prepared in the edge of the opposite side hits the contact of a lever switch (SW) 10. Usually, since lock pin lock section 7a of a lock pin 7 has fitted into case lock hole 6a in the state of drawing 3 , a lever 9 does not slide slide hole 6b rightward.

[0011] Drawing 4 (a) is the transverse-plane sectional view showing the condition of having canceled the lever lock. If a part for the head of lock pin discharge section 7b of a lock pin 7 is pushed, lock pin lock section 7a evacuates above case lock hole 6a, and a lever 9 will be in the condition which can be slid about the inside of slide hole 6b. Drawing 4 (b) is the transverse-plane sectional view showing the condition of having made it sliding. When a lever 9 is made to slide rightward against the energization force of the lever spring 3, pressing section 11c is pressed at the contact of a lever switch 10, and makes a lever switch 10 turn on.

[0012] Drawing 5 is drawing showing the example of the circuit of the electronic "still" camera which applied this invention approach. Each circuit actuation is explained in accordance with the flow of the flow chart of drawing 2 . In PURISACHI actuation, CPU12 takes out directions to the servo circuit 20, controls the drive circuit 16, drives a motor 15, controls the video floppy 14 to fixed rotation, makes the head drive circuit 17 drive, and searchs the head in order from one truck to 50 trucks. This detects the image information of each truck in record / regenerative circuit 19. If PURISACHI actuation is completed, a head is positioned at one truck and a playback carbon button is pushed, it will be read in record / regenerative circuit 19, and will get over to a video signal in the regeneration circuit 21, and the monitor which it is sent out to a video outlet terminal through a mixing circuit 23, and is not illustrated will be reproduced. If the IRESURE bar prepared in the key circuit 13 is made to slide, CPU12 will send truck information to a mixing circuit 23 from a character generator 24, and will display a track number on the upper right of a monitor while it changes an image into a mute condition. Then, the elimination circuit 18 is started and the image of one truck is eliminated.

[0013] When the IRESURE bar is in the slide condition t seconds or more, further, from a character generator 24, the display of continuation elimination to a continuation elimination standby pan is sent out to a mixing circuit 23, and that is displayed. And a head is positioned in the next truck and read-out playback of the image is carried out by record / regenerative circuit 19. When the IRESURE bar is maintained by the slide condition, the image of the next truck which started the elimination circuit 18 and was reproduced is eliminated. CPU12 judges whether it eliminated up to 50 trucks, when having not eliminated up to 50 trucks, positions a head in the next truck further, and eliminates by carrying out the same actuation as the above. When an IRESURE bar is detached on the way, continuation elimination is stopped, and when it reaches up to 50 trucks, an image is changed into a mute condition, and from a character generator 24, the information on -- is sent out to a mixing circuit 23, and is displayed on a monitor.

[0014] Drawing 7 is a flow chart which shows other examples of the procedure of the video floppy record drawing elimination approach by this invention. Drawing 6 is drawing showing the actuated valve position of an IRESURE bar and the condition of TV screen in the elimination procedure of drawing 7 . Although the example of drawing 2 showed the example of continuation elimination, this example is the case where all the pieces of a video floppy are eliminated. If it equips with a video floppy, a head will be automatically positioned in the truck of 1 and the image of the truck will be reproduced by actuation of a playback carbon button (drawing 6 **). An operator will slide an IRESURE bar, if it checks that the reproduced screen may be seen and eliminated (step 1). The piece is eliminated, after changing TV screen into a mute condition with the slide of an IRESURE bar and displaying a track number (steps 2 and 3). Drawing 6 ** shows the actuated valve position of the IRESURE bar at this time, and the condition of TV screen.

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CLAIMS

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[Claim 1] It searches beforehand whether the image is recorded by the Puri search function to each truck. When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display continuation elimination and the image of the next truck is reproduced. It judges whether when actuation of said IRESU actuation means is furthermore continuing, the image was eliminated and elimination actuation is all completed to a recorded truck. When elimination actuation is not completed, after reproducing to the image of the next truck further, When the actuation to eliminate is repeated and actuation of said IRESU actuation means is completed during said playback elimination repeat actuation, continuation elimination is stopped at the time. It is the video floppy record drawing elimination approach characterized by constituting so that that may be displayed on a display, when elimination is all completed to said recorded truck.
[Claim 2] When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display all piece elimination standby and continuation playback of the image of all the trucks after a degree is carried out. By the time said continuation playback is completed, when actuation of said IRESU actuation means is completed, all piece elimination is stopped. It is the video floppy record drawing elimination approach characterized by constituting so that all piece elimination displays may be performed, all piece elimination may be performed and that may be displayed on a display, after carrying out continuation playback, when actuation of said IRESU actuation means is continuing further.

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[Detailed Description of the Invention]
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[0002]
[Description of the Prior Art] In the regenerative apparatus of an electronic video camera or a video floppy, it has the function which usually specifies an unnecessary piece and eliminates one piece, and the function which carries out package elimination of all the images of a video floppy. In order to realize the above-mentioned function, conventionally, there is combination of various switches and it was going also across the operating instructions variably. The typical example is shown below.
** Prepare three carbon buttons, a standby carbon button, an IRESU carbon button, and an all IRESU carbon button, and at the time of 1 piece elimination, push an IRESU carbon button after pushing a standby carbon button. And at the time of all piece elimination, after pushing a standby carbon button, an all IRESU carbon button is pushed.
** Prepare two carbon buttons, a standby carbon button and an IRESU carbon button, and at the time of 1 piece elimination, push an IRESU carbon button after pushing a standby carbon button. And an IRESU carbon button is pushed at the time of all piece elimination, pushing a standby carbon button.
** Consist of two carbon buttons, an IRESU carbon button and a release carbon button, and push a release carbon button at the time of 1 piece elimination, pushing an IRESU carbon button. And the video floppy which should be eliminated while pushing an IRESU carbon button is put in at the time of all piece elimination.
[0003]
[Problem(s) to be Solved by the Invention] It did not have the function which confirms whether the image which must not devise no above-mentioned examples in order to prevent malfunction of a push mistake etc., and must not be erased in that it is the video floppy which may be erased, or a video floppy is contained. Therefore, when an operator had not noticed, there was a fault of erasing an important image accidentally. It is for providing about the elimination approach of the video floppy record drawing which does not eliminate accidentally the image which should carry out record-keeping by the purpose of this invention solving the above-mentioned fault, preparing the function which reproduces the image which should be eliminated just before elimination into a series of elimination actuation, checking the image which an operator should eliminate, and enabling the termination of elimination actuation on the way if needed.
[0004]
[Means for Solving the Problem] In order to attain said purpose, the video floppy record drawing elimination approach by this invention searches beforehand whether the image is recorded by the Puri search function to each truck. When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display continuation elimination and the image of the next truck is reproduced. It judges whether when actuation of said IRESU actuation means is furthermore continuing, the image was eliminated and elimination actuation is

all completed to a recorded truck. When elimination actuation is not completed, after reproducing to the image of the next truck further, The actuation to eliminate is repeated, when actuation of said IRESU actuation means is completed during said playback elimination repeat actuation, continuation elimination is stopped at the time, and when elimination is all completed to said recorded truck, it is constituted so that that may be displayed on a display. Moreover, when an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display all piece elimination standby and continuation playback of the image of all the trucks after a degree is carried out. By the time said continuation playback is completed, when actuation of said IRESU actuation means is completed, all piece elimination is stopped, and when actuation of said IRESU actuation means is continuing further, after carrying out continuation playback, it is constituted so that all piece elimination displays may be performed, all piece elimination may be carried out and that may be displayed to a display.

[0005]

[Example] Hereafter, with reference to a drawing etc., this invention is explained in more detail. Drawing 1 is drawing for explaining the actuated valve position of the IRESURE bar in each process of the video floppy record drawing elimination approach by this invention of operation, and the condition of TV screen. If the IRESURE bar which is an IRESU actuation means is made to slide in the direction of drawing Nakamigi, the actuation for elimination is started, according to an elimination procedure, TV screen will be in a playback condition, it will be in a mute condition, or a track number, a standby display, etc. will be displayed.

[0006] Drawing 2 is a flow chart which shows one example of the procedure of the video floppy record drawing elimination approach by this invention. Hereafter, the actuated valve position of the IRESURE bar of drawing 1 in each step and TV screen condition at that time are explained, explaining the flow of drawing 2. If it equips with a video floppy, the Puri search function will be started and image information will be detected about all one to 50 trucks (step 1). If you wish continuation elimination here, the image of the truck of the youngest number that wishes to eliminate will be reproduced on TV screen by operating a playback carbon button (drawing 1 **).

An operator will slide an IRESURE bar, if it checks that the reproduced screen may be seen and eliminated (step 2). The piece is eliminated, after changing TV screen into a mute condition with the slide of an IRESURE bar and displaying a track number (steps 3 and 4). Drawing 1 ** shows the actuated valve position and TV screen of an IRESURE bar at this time.

[0007] Decision whether it is continuing t seconds or more is made (step 5), when a slide condition is canceled within t seconds, 1 piece elimination is performed, and the slide condition of the above-mentioned IRESURE bar ends the actuation (step 6). On the other hand, when a slide condition continues t seconds or more, a continuation elimination display is continuously displayed continuation elimination standby and performed on TV screen (steps 7 and 8). It is the display of CONT.STBY of drawing 1 **, and CONT.ERASE of **. At this time, the head is moved and playback of the image of that truck is performed in the location of the next truck. It is the screen of TV of drawing 1 **. When an IRESURE bar judges whether a slide condition is still maintained (step 9) and is not maintained at this time, continuation elimination actuation is stopped (step 10).

[0008] When the slide condition of an IRESURE bar is maintained, the image of the reproduced truck is eliminated (step 11). Drawing 1 ** shows the condition when eliminating the image of two trucks as mentioned above. Then, it distinguishes whether elimination of all memorized trucks was completed (step 12). When elimination is not completed, the image of return and the next truck is reproduced and eliminated by step 9. This playback elimination actuation is repeated, when elimination of all recorded trucks is completed, TV screen is made into a mute condition, and -- is displayed on a part for a track number display (step 13). It is in the condition of drawing 1 **. In addition, continuation elimination actuation can be stopped at the time by detaching an IRESURE bar to the midst which repeats the loop formation constituted by the above-mentioned steps 9, 11, and 12, and is performing sequential playback elimination.

[0009] Drawing 3 is drawing showing one example of the structure of an IRESURE bar. A transverse-plane sectional view and this drawing (b) of this drawing (a) are top views where an A-A sectional view

and this drawing (c) observed the lock pin. A lever 9 is inserted in slide hole 6b of a case 6, fitting of the fitting sections 9a and 9b projected through case lock hole 6a is carried out to the lever holder 11, and a lever 9 and the lever holder 11 slide the inside of slide hole 6b by one. In case Holes 9c and 11a are formed in a lever 9 and the center section of the lever holder 11 and the above-mentioned lever 9 and the lever holder 11 are fitted in, it is made to also insert a lock pin in these holes 9c and 11a.

[0010] Lock pin discharge section 7b inserts in hole 9c, and interior of lock pin proposal 7c is made to insert in hole 11a, respectively. The lock spring 8 is fitted in interior of lock pin proposal 7c of a lock pin 7, and, as for a lock pin 7, the energization force is given in the lever 9 direction. It is built over the lever spring 3 between projection 11b of the lever holder 11, and lobe 6c of a case 6, and, as for the lever 9, the energization force is given leftward in drawing. With projection 11b of the lever holder 11, pressing section 11c prepared in the edge of the opposite side hits the contact of a lever switch (SW) 10. Usually, since lock pin lock section 7a of a lock pin 7 has fitted into case lock hole 6a in the state of drawing 3 , a lever 9 does not slide slide hole 6b rightward.

[0011] Drawing 4 (a) is the transverse-plane sectional view showing the condition of having canceled the lever lock. If a part for the head of lock pin discharge section 7b of a lock pin 7 is pushed, lock pin lock section 7a evacuates above case lock hole 6a, and a lever 9 will be in the condition which can be slid about the inside of slide hole 6b. Drawing 4 (b) is the transverse-plane sectional view showing the condition of having made it sliding. When a lever 9 is made to slide rightward against the energization force of the lever spring 3, pressing section 11c is pressed at the contact of a lever switch 10, and makes a lever switch 10 turn on.

[0012] Drawing 5 is drawing showing the example of the circuit of the electronic "still" camera which applied this invention approach. Each circuit actuation is explained in accordance with the flow of the flow chart of drawing 2 . In PURISACHI actuation, CPU12 takes out directions to the servo circuit 20, controls the drive circuit 16, drives a motor 15, controls the video floppy 14 to fixed rotation, makes the head drive circuit 17 drive, and searchs the head in order from one truck to 50 trucks. This detects the image information of each truck in record / regenerative circuit 19. If PURISACHI actuation is completed, a head is positioned at one truck and a playback carbon button is pushed, it will be read in record / regenerative circuit 19, and will get over to a video signal in the regeneration circuit 21, and the monitor which it is sent out to a video outlet terminal through a mixing circuit 23, and is not illustrated will be reproduced. If the IRESURE bar prepared in the key circuit 13 is made to slide, CPU12 will send truck information to a mixing circuit 23 from a character generator 24, and will display a track number on the upper right of a monitor while it changes an image into a mute condition. Then, the elimination circuit 18 is started and the image of one truck is eliminated.

[0013] When the IRESURE bar is in the slide condition t seconds or more, further, from a character generator 24, the display of continuation elimination to a continuation elimination standby pan is sent out to a mixing circuit 23, and that is displayed. And a head is positioned in the next truck and read-out playback of the image is carried out by record / regenerative circuit 19. When the IRESURE bar is maintained by the slide condition, the image of the next truck which started the elimination circuit 18 and was reproduced is eliminated. CPU12 judges whether it eliminated up to 50 trucks, when having not eliminated up to 50 trucks, positions a head in the next truck further, and eliminates by carrying out the same actuation as the above. When an IRESURE bar is detached on the way, continuation elimination is stopped, and when it reaches up to 50 trucks, an image is changed into a mute condition, and from a character generator 24, the information on -- is sent out to a mixing circuit 23, and is displayed on a monitor.

[0014] Drawing 7 is a flow chart which shows other examples of the procedure of the video floppy record drawing elimination approach by this invention. Drawing 6 is drawing showing the actuated valve position of an IRESURE bar and the condition of TV screen in the elimination procedure of drawing 7 . Although the example of drawing 2 showed the example of continuation elimination, this example is the case where all the pieces of a video floppy are eliminated. If it equips with a video floppy, a head will be automatically positioned in the truck of 1 and the image of the truck will be reproduced by actuation of a playback carbon button (drawing 6 **). An operator will slide an IRESURE bar, if it checks that the reproduced screen may be seen and eliminated (step 1). The piece is eliminated, after changing TV screen into a mute condition with the slide of an IRESURE bar and displaying a track number (steps 2 and 3). Drawing 6 ** shows the actuated valve position of the IRESURE bar at this time, and the condition of TV screen.

[0015] Decision whether it is continuing t seconds or more is made (step 4), and the slide condition of the above-mentioned IRESURE bar ends 1 piece elimination actuation, when a slide condition is canceled within t seconds (step 5). On the other hand, when the slide condition is continuing t seconds or more, all piece elimination standby is displayed on TV screen (step 6). ALL of drawing 6 ** The display of STBY is it. At this time, the head is moved to the location of the next truck and continuation playback of an image is started from that truck to subsequent trucks. It is in the condition of drawing 6 ** to **, and is ALL. It is reproduced where STBY is displayed. It is judged whether the slide condition of an IRESURE bar is continuing during continuation playback of an image. When the slide condition of an IRESURE bar is canceled, all piece elimination is stopped (step 8).
[0016] On the other hand, when the slide condition of an IRESURE bar is continuing, continuation playback is performed to the truck of 50 (step 9), and all piece elimination standby displays are continued. It is in the condition of drawing 6 ** and **. It is judged whether furthermore, the slide condition of an IRESURE bar is continuing at this time (step 10). When the slide condition of an IRESURE bar is canceled, all piece elimination is stopped (step 11). On the other hand, when the slide condition of an IRESURE bar is continuing, all piece elimination displays are performed (step 12), and all piece elimination is performed (step 13). It is in the condition of drawing 6 **. In addition, after step 12, even if it detaches an IRESURE bar, all piece elimination is performed. If it is before step 12, all piece elimination can be stopped. After all piece elimination is completed (step 14), TV screen is made into a mute condition and -- is displayed on a part for a track number display (step 15). It is in the condition of drawing 6 **.
[0017]
[Effect of the Invention] As mentioned above, since 1 piece elimination and all piece elimination can be made to serve a double purpose with one IRESU actuation means according to the video floppy record drawing elimination approach by this invention as explained, the switches for actuation can be lessened. Therefore, since the front panel is simplified while a key layout is made more freely, an operation mistake decreases. Moreover, since an image can be checked just before elimination in the case of continuation elimination and all piece elimination, when the mistake and the image which must not be erased of a video floppy are discovered, elimination actuation can be stopped on the way. At the case where the contents of a video floppy which should furthermore carry out continuation or all piece elimination are already understood, the time of hurry, etc., it is also possible to skip the part reproduced by mode switch. In this case, in the example of drawing 2 , it goes on until it becomes mute, without being reproduced and the loop formation of steps 9, 11, and 12 becomes the last piece at a stretch, and continuation piece elimination actuation is performed by step 9. Moreover, in the example of drawing 7 , it will skip to step 12 from step 7. Even if it cancels actuation of an IRESU actuation means after the contents of the video floppy are reproduced and checked, in all piece elimination, it is not necessary to start elimination actuation, and it does not have to change an IRESU actuation means into an actuation condition to the last.

[Translation done.]

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TECHNICAL FIELD

[Industrial Application] This invention relates to the approach of eliminating the image photoed with the electronic "still" camera.

[Translation done.]

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PRIOR ART

[Description of the Prior Art] In the regenerative apparatus of an electronic video camera or a video floppy, it has the function which usually specifies an unnecessary piece and eliminates one piece, and the function which carries out package elimination of all the images of a video floppy. In order to realize the above-mentioned function, conventionally, there is combination of various switches and it was going also across the operating instructions variably. The typical example is shown below.
** Prepare three carbon buttons, a standby carbon button, an IRESU carbon button, and an all IRESU carbon button, and at the time of 1 piece elimination, push an IRESU carbon button after pushing a standby carbon button. And at the time of all piece elimination, after pushing a standby carbon button, an all IRESU carbon button is pushed.
** Prepare two carbon buttons, a standby carbon button and an IRESU carbon button, and at the time of 1 piece elimination, push an IRESU carbon button after pushing a standby carbon button. And an IRESU carbon button is pushed at the time of all piece elimination, pushing a standby carbon button.
** Consist of two carbon buttons, an IRESU carbon button and a release carbon button, and push a release carbon button at the time of 1 piece elimination, pushing an IRESU carbon button. And the video floppy which should be eliminated while pushing an IRESU carbon button is put in at the time of all piece elimination.

[Translation done.]

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EFFECT OF THE INVENTION

[Effect of the Invention] As mentioned above, since 1 piece elimination and all piece elimination can be made to serve a double purpose with one IRESU actuation means according to the video floppy record drawing elimination approach by this invention as explained, the switches for actuation can be lessened. Therefore, since the front panel is simplified while a key layout is made more freely, an operation mistake decreases. Moreover, since an image can be checked just before elimination in the case of continuation elimination and all piece elimination, when the mistake and the image which must not be erased of a video floppy are discovered, elimination actuation can be stopped on the way. At the case where the contents of a video floppy which should furthermore carry out continuation or all piece elimination are already understood, the time of hurry, etc., it is also possible to skip the part reproduced by mode switch. In this case, in the example of drawing 2 , it goes on until it becomes mute, without being reproduced and the loop formation of steps 9, 11, and 12 becomes the last piece at a stretch, and continuation piece elimination actuation is performed by step 9. Moreover, in the example of drawing 7 , it will skip to step 12 from step 7. Even if it cancels actuation of an IRESU actuation means after the contents of the video floppy are reproduced and checked, in all piece elimination, it is not necessary to start elimination actuation, and it does not have to change an IRESU actuation means into an actuation condition to the last.

[Translation done.]

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] It did not have the function which confirms whether the image which must not devise no above-mentioned examples in order to prevent malfunction of a push mistake etc., and must not be erased in that it is the video floppy which may be erased, or a video floppy is contained. Therefore, when an operator had not noticed, there was a fault of erasing an important image accidentally. It is for providing about the elimination approach of the video floppy record drawing which does not eliminate accidentally the image which should carry out record-keeping by the purpose of this invention solving the above-mentioned fault, preparing the function which reproduces the image which should be eliminated just before elimination into a series of elimination actuation, checking the image which an operator should eliminate, and enabling the termination of elimination actuation on the way if needed.

[Translation done.]

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MEANS

[Means for Solving the Problem] In order to attain said purpose, the video floppy record drawing elimination approach by this invention searches beforehand whether the image is recorded by the Puri search function to each truck. When an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display continuation elimination and the image of the next truck is reproduced. It judges whether when actuation of said IRESU actuation means is furthermore continuing, the image was eliminated and elimination actuation is all completed to a recorded truck. When elimination actuation is not completed, after reproducing to the image of the next truck further, The actuation to eliminate is repeated, when actuation of said IRESU actuation means is completed during said playback elimination repeat actuation, continuation elimination is stopped at the time, and when elimination is all completed to said recorded truck, it is constituted so that that may be displayed on a display. Moreover, when an IRESU actuation means is operated, after displaying the track number in which the head is positioned by the display, When the image of one piece of the truck is eliminated and actuation of said IRESU actuation means is completed within predetermined time, 1 piece elimination is ended. When actuation of said IRESU actuation means is continuing, display all piece elimination standby and continuation playback of the image of all the trucks after a degree is carried out. By the time said continuation playback is completed, when actuation of said IRESU actuation means is completed, all piece elimination is stopped, and when actuation of said IRESU actuation means is continuing further, after carrying out continuation playback, it is constituted so that all piece elimination displays may be performed, all piece elimination may be carried out and that may be displayed to a display.

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EXAMPLE

[Example] Hereafter, with reference to a drawing etc., this invention is explained in more detail. Drawing 1 is drawing for explaining the actuated valve position of the IRESURE bar in each process of the video floppy record drawing elimination approach by this invention of operation, and the condition of TV screen. If the IRESURE bar which is an IRESU actuation means is made to slide in the direction of drawing Nakamigi, the actuation for elimination is started, according to an elimination procedure, TV screen will be in a playback condition, it will be in a mute condition, or a track number, a standby display, etc. will be displayed.
[0006] Drawing 2 is a flow chart which shows one example of the procedure of the video floppy record drawing elimination approach by this invention. Hereafter, the actuated valve position of the IRESURE bar of drawing 1 in each step and TV screen condition at that time are explained, explaining the flow of drawing 2 . If it equips with a video floppy, the Puri search function will be started and image information will be detected about all one to 50 trucks (step 1). If you wish continuation elimination here, the image of the truck of the youngest number that wishes to eliminate will be reproduced on TV screen by operating a playback carbon button (drawing 1 **).
An operator will slide an IRESURE bar, if it checks that the reproduced screen may be seen and eliminated (step 2). The piece is eliminated, after changing TV screen into a mute condition with the slide of an IRESURE bar and displaying a track number (steps 3 and 4). Drawing 1 ** shows the actuated valve position and TV screen of an IRESURE bar at this time.
[0007] Decision whether it is continuing t seconds or more is made (step 5), when a slide condition is canceled within t seconds, 1 piece elimination is performed, and the slide condition of the above-mentioned IRESURE bar ends the actuation (step 6). On the other hand, when a slide condition continues t seconds or more, a continuation elimination display is continuously displayed continuation elimination standby and performed on TV screen (steps 7 and 8). It is the display of CONT.STBY of drawing 1 **, and CONT.ERASE of **. At this time, the head is moved and playback of the image of that truck is performed in the location of the next truck. It is the screen of TV of drawing 1 **. When an IRESURE bar judges whether a slide condition is still maintained (step 9) and is not maintained at this time, continuation elimination actuation is stopped (step 10).
[0008] When the slide condition of an IRESURE bar is maintained, the image of the reproduced truck is eliminated (step 11). Drawing 1 ** shows the condition when eliminating the image of two trucks as mentioned above. Then, it distinguishes whether elimination of all memorized trucks was completed (step 12). When elimination is not completed, the image of return and the next truck is reproduced and eliminated by step 9. This playback elimination actuation is repeated, when elimination of all recorded trucks is completed, TV screen is made into a mute condition, and -- is displayed on a part for a track number display (step 13). It is in the condition of drawing 1 **. In addition, continuation elimination actuation can be stopped at the time by detaching an IRESURE bar to the midst which repeats the loop formation constituted by the above-mentioned steps 9, 11, and 12, and is performing sequential playback elimination.
[0009] Drawing 3 is drawing showing one example of the structure of an IRESURE bar. A transverse-plane sectional view and this drawing (b) of this drawing (a) are top views where an A-A sectional view and this drawing (c) observed the lock pin. A lever 9 is inserted in slide hole 6b of a case 6, fitting of the fitting sections 9a and 9b projected through case lock hole 6a is carried out to the lever holder 11, and a

lever 9 and the lever holder 11 slide the inside of slide hole 6b by one. In case Holes 9c and 11a are formed in a lever 9 and the center section of the lever holder 11 and the above-mentioned lever 9 and the lever holder 11 are fitted in, it is made to also insert a lock pin in these holes 9c and 11a.
[0010] Lock pin discharge section 7b inserts in hole 9c, and interior of lock pin proposal 7c is made to insert in hole 11a, respectively. The lock spring 8 is fitted in interior of lock pin proposal 7c of a lock pin 7, and, as for a lock pin 7, the energization force is given in the lever 9 direction. It is built over the lever spring 3 between projection 11b of the lever holder 11, and lobe 6c of a case 6, and, as for the lever 9, the energization force is given leftward in drawing. With projection 11b of the lever holder 11, pressing section 11c prepared in the edge of the opposite side hits the contact of a lever switch (SW) 10. Usually, since lock pin lock section 7a of a lock pin 7 has fitted into case lock hole 6a in the state of drawing 3 , a lever 9 does not slide slide hole 6b rightward.
[0011] Drawing 4 (a) is the transverse-plane sectional view showing the condition of having canceled the lever lock. If a part for the head of lock pin discharge section 7b of a lock pin 7 is pushed, lock pin lock section 7a evacuates above case lock hole 6a, and a lever 9 will be in the condition which can be slid about the inside of slide hole 6b. Drawing 4 (b) is the transverse-plane sectional view showing the condition of having made it sliding. When a lever 9 is made to slide rightward against the energization force of the lever spring 3, pressing section 11c is pressed at the contact of a lever switch 10, and makes a lever switch 10 turn on.
[0012] Drawing 5 is drawing showing the example of the circuit of the electronic "still" camera which applied this invention approach. Each circuit actuation is explained in accordance with the flow of the flow chart of drawing 2 . In PURISACHI actuation, CPU12 takes out directions to the servo circuit 20, controls the drive circuit 16, drives a motor 15, controls the video floppy 14 to fixed rotation, makes the head drive circuit 17 drive, and searchs the head in order from one truck to 50 trucks. This detects the image information of each truck in record / regenerative circuit 19. If PURISACHI actuation is completed, a head is positioned at one truck and a playback carbon button is pushed, it will be read in record / regenerative circuit 19, and will get over to a video signal in the regeneration circuit 21, and the monitor which it is sent out to a video outlet terminal through a mixing circuit 23, and is not illustrated will be reproduced. If the IRESURE bar prepared in the key circuit 13 is made to slide, CPU12 will send truck information to a mixing circuit 23 from a character generator 24, and will display a track number on the upper right of a monitor while it changes an image into a mute condition. Then, the elimination circuit 18 is started and the image of one truck is eliminated.
[0013] When the IRESURE bar is in the slide condition t seconds or more, further, from a character generator 24, the display of continuation elimination to a continuation elimination standby pan is sent out to a mixing circuit 23, and that is displayed. And a head is positioned in the next truck and read-out playback of the image is carried out by record / regenerative circuit 19. When the IRESURE bar is maintained by the slide condition, the image of the next truck which started the elimination circuit 18 and was reproduced is eliminated. CPU12 judges whether it eliminated up to 50 trucks, when having not eliminated up to 50 trucks, positions a head in the next truck further, and eliminates by carrying out the same actuation as the above. When an IRESURE bar is detached on the way, continuation elimination is stopped, and when it reaches up to 50 trucks, an image is changed into a mute condition, and from a character generator 24, the information on -- is sent out to a mixing circuit 23, and is displayed on a monitor.
[0014] Drawing 7 is a flow chart which shows other examples of the procedure of the video floppy record drawing elimination approach by this invention. Drawing 6 is drawing showing the actuated valve position of an IRESURE bar and the condition of TV screen in the elimination procedure of drawing 7 . Although the example of drawing 2 showed the example of continuation elimination, this example is the case where all the pieces of a video floppy are eliminated. If it equips with a video floppy, a head will be automatically positioned in the truck of 1 and the image of the truck will be reproduced by actuation of a playback carbon button (drawing 6 **). An operator will slide an IRESURE bar, if it checks that the reproduced screen may be seen and eliminated (step 1). The piece is eliminated, after changing TV screen into a mute condition with the slide of an IRESURE bar and displaying a track number (steps 2 and 3). Drawing 6 ** shows the actuated valve position of the IRESURE bar at this time, and the condition of TV screen.
[0015] Decision whether it is continuing t seconds or more is made (step 4), and the slide condition of the above-mentioned IRESURE bar ends 1 piece elimination actuation, when a slide condition is canceled

within t seconds (step 5). On the other hand, when the slide condition is continuing t seconds or more, all piece elimination standby is displayed on TV screen (step 6). ALL of drawing 6 ** The display of STBY is it. At this time, the head is moved to the location of the next truck and continuation playback of an image is started from that truck to subsequent trucks. It is in the condition of drawing 6 ** to **, and is ALL. It is reproduced where STBY is displayed. It is judged whether the slide condition of an IRESURE bar is continuing during continuation playback of an image. When the slide condition of an IRESURE bar is canceled, all piece elimination is stopped (step 8).

[0016] On the other hand, when the slide condition of an IRESURE bar is continuing, continuation playback is performed to the truck of 50 (step 9), and all piece elimination standby displays are continued. It is in the condition of drawing 6 ** and **. It is judged whether furthermore, the slide condition of an IRESURE bar is continuing at this time (step 10). When the slide condition of an IRESURE bar is canceled, all piece elimination is stopped (step 11). On the other hand, when the slide condition of an IRESURE bar is continuing, all piece elimination displays are performed (step 12), and all piece elimination is performed (step 13). It is in the condition of drawing 6 **. In addition, after step 12, even if it detaches an IRESURE bar, all piece elimination is performed. If it is before step 12, all piece elimination can be stopped. After all piece elimination is completed (step 14), TV screen is made into a mute condition and -- is displayed on a part for a track number display (step 15). It is in the condition of drawing 6 **.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is drawing for explaining the condition of the IRESURE bar in each process of the video floppy record drawing elimination approach by this invention of operation, and TV screen.
[Drawing 2] It is the flow chart which shows one example of the procedure of the video floppy record drawing elimination approach by this invention.
[Drawing 3] It is drawing showing one example of the structure of an IRESURE bar.
[Drawing 4] It is drawing for explaining each condition of an IRESURE bar.
[Drawing 5] It is drawing showing the example of the circuit of the electronic "still" camera which applied this invention approach.
[Drawing 6] It is drawing showing the condition of the IRESURE bar in the elimination procedure of drawing 7 , and TV screen.
[Drawing 7] It is the flow chart which shows other examples of the procedure of the video floppy record drawing elimination approach by this invention.
[Description of Notations]
2 -- IRESURE bar
3 -- Lever spring
6 -- Case
7 -- Lock pin
8 -- Lock spring
9 -- Lever
10 -- Lever switch
11 -- Lever holder
12 -- CPU
13 -- Key circuit
18 -- Elimination circuit
21 -- Regeneration circuit
23 -- Mixing circuit
24 -- Character generator

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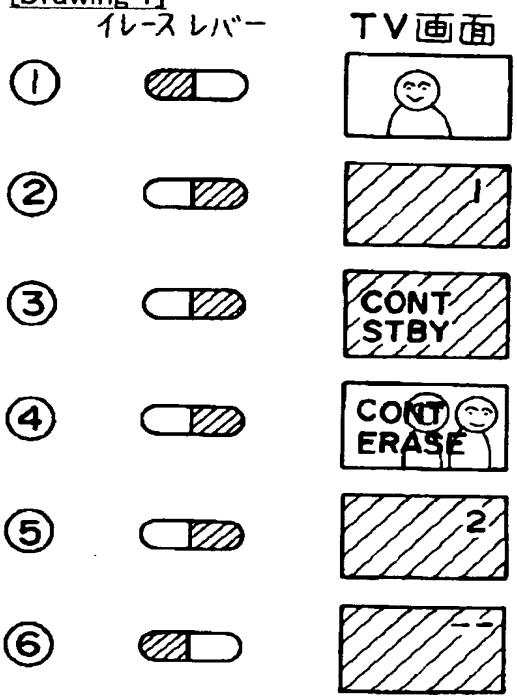
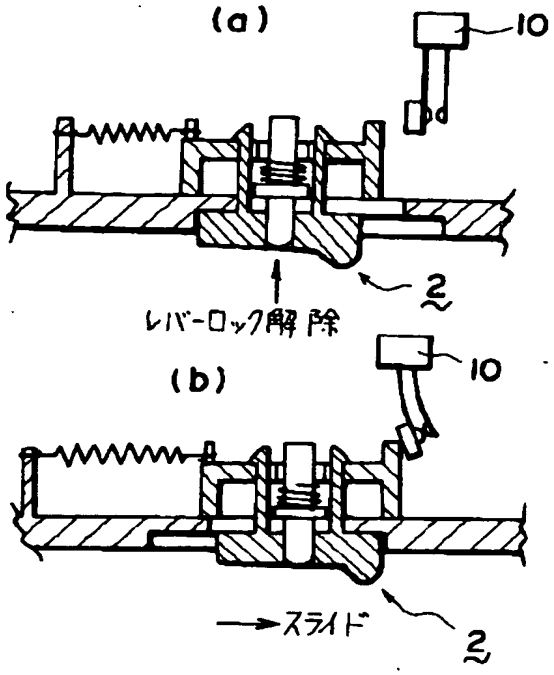
DRAWINGS

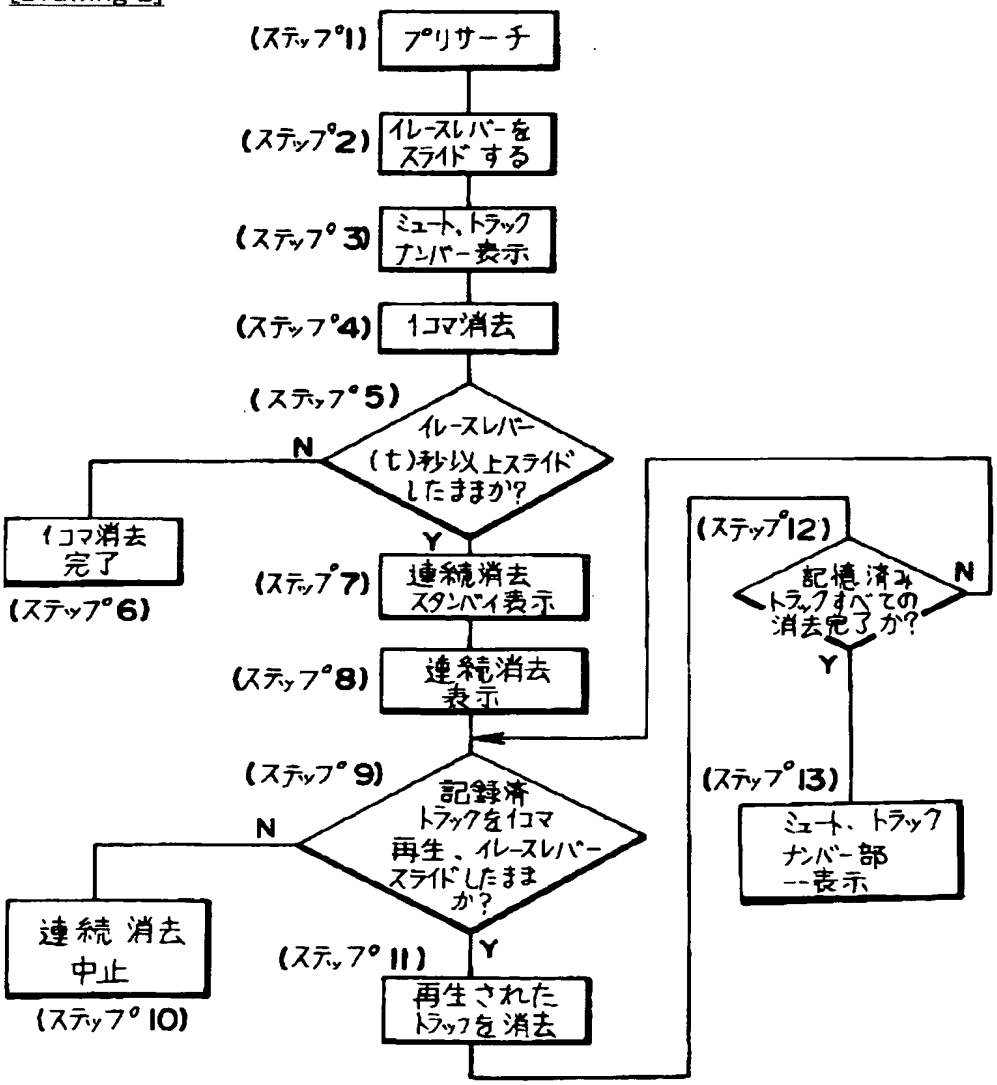
[Drawing 1]



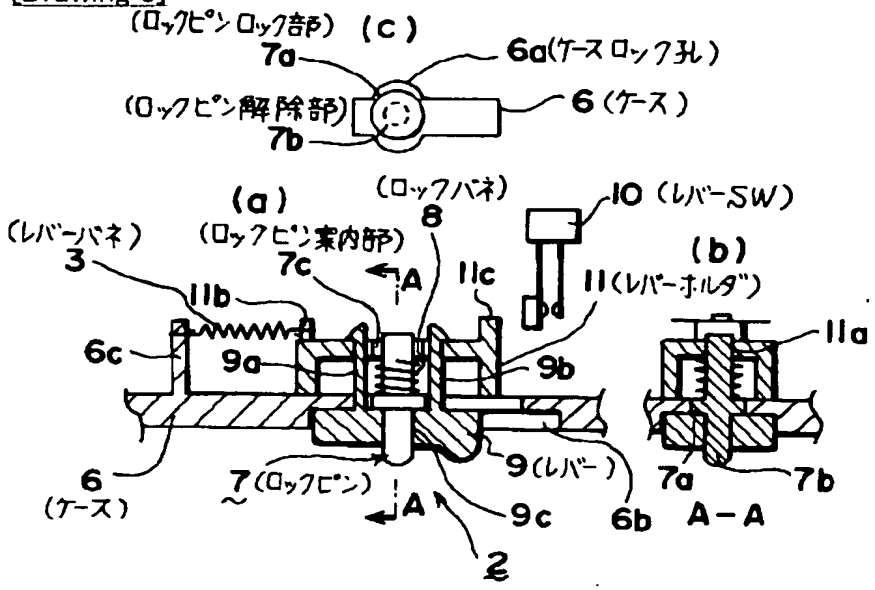
[Drawing 4]


(a)
10
2
レバーロック解除
(b)
10
スライド
2

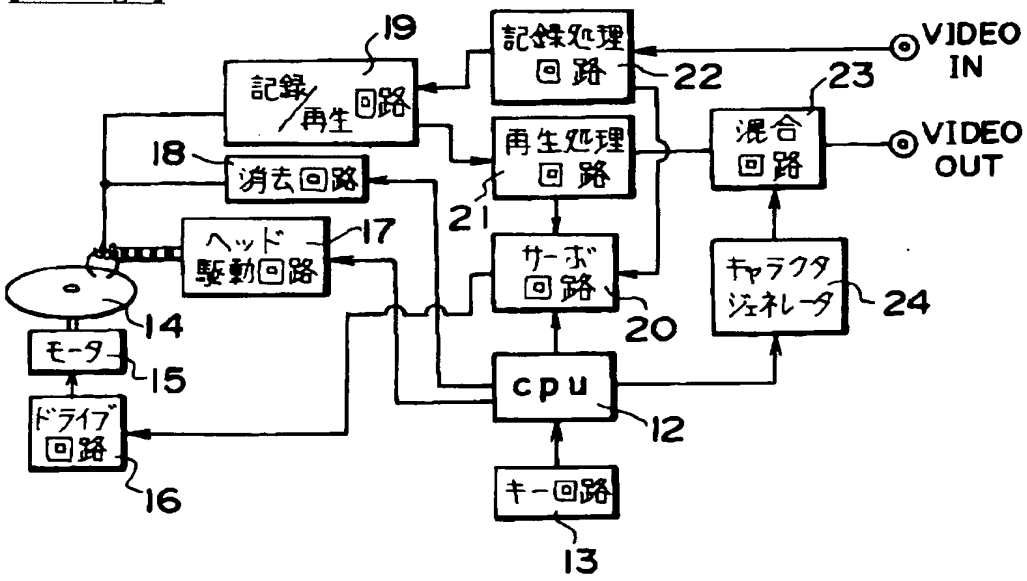
[Drawing 2]


(ステップ1) プリサーチ
(ステップ2) イレースレバーをスライドする
(ステップ3) ミュート、トラックナンバー表示
(ステップ4) 1コマ消去
(ステップ5) イレースレバー(t)秒以上スライドしたままか?
N
Y
1コマ消去完了
(ステップ6)
(ステップ7) 連続消去スタンバイ表示
(ステップ8) 連続消去表示
(ステップ9) 記録済トラックを1コマ再生、イレースレバースライドしたままか?
N
Y
連続消去中止
(ステップ10)
(ステップ11) 再生されたトラックを消去
(ステップ12) 記憶済みトラックすべての消去完了か?
N
Y
(ステップ13) ミュート、トラックナンバー部--表示

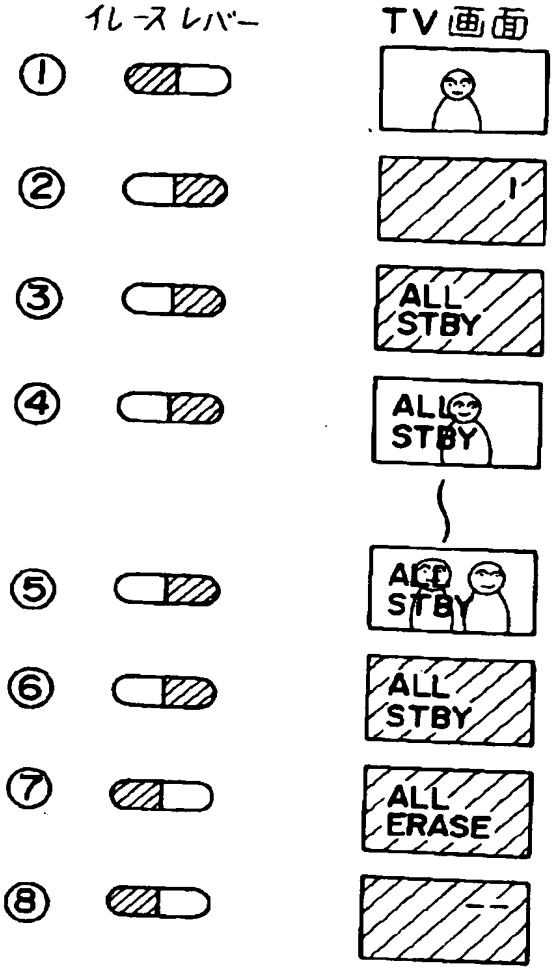
[Drawing 3]



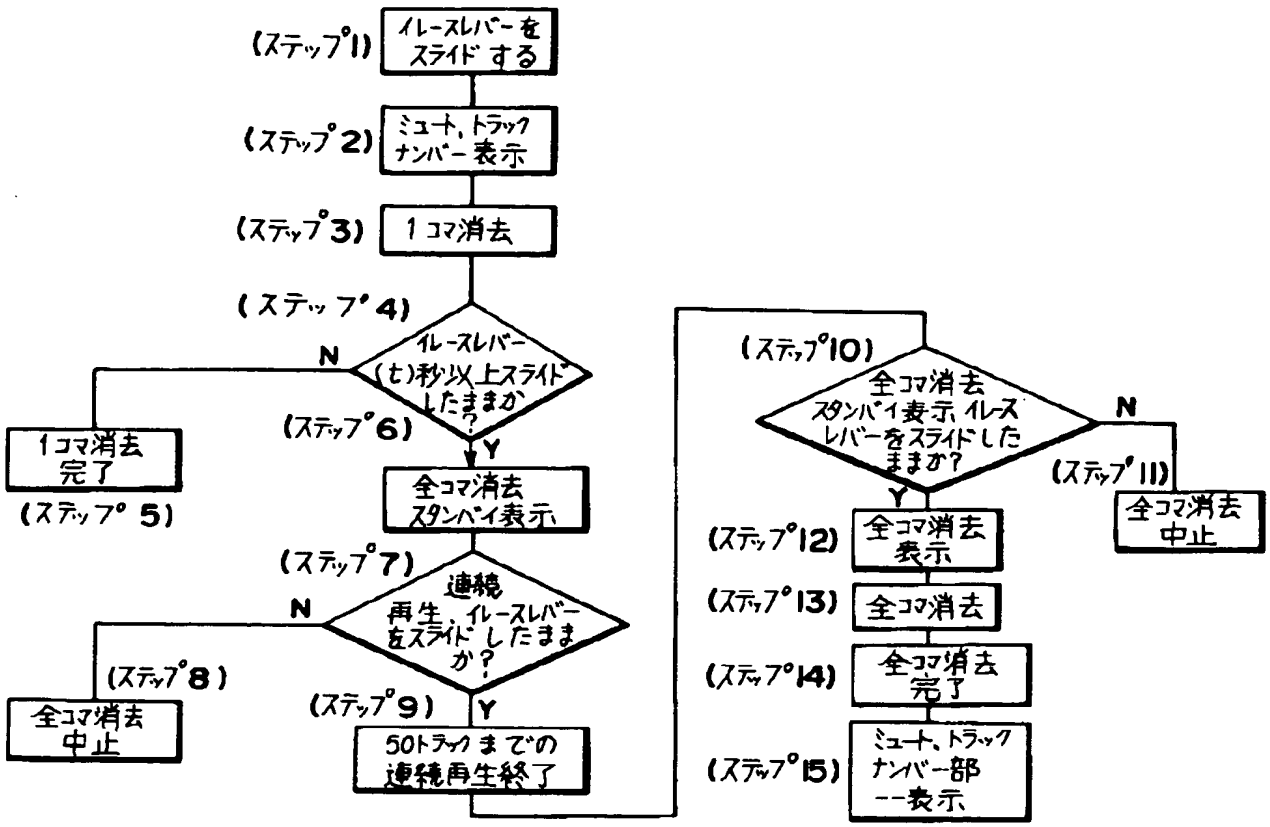
[Drawing 5]



[Drawing 6]


イレースレバー
TV画面
①
②
③
ALL
STBY
④
ALL
STBY
⑤
ALL
STBY
⑥
ALL
STBY
⑦
ALL
ERASE
⑧
--

[Drawing 7]



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